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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/763,897

01/23/2004

Soichi Wakatsuki

MITPA10.001AUS

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07/26/2007

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EXAMINER

MUI, CHRISTINE T

ART UNIT

PAPER NUMBER

1709

NOTIFICATION DATE

DELIVERY MODE

07/26/2007

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

jcartee@kmob.com
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Office Action Summary

Application No.

10/763,897

Applicant(s)

WAKATSUKI ET AL.

Examiner

Christine T. Mui

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 02 April 2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

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DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 06-074957 to Masaaki (submitted in the Information Disclosure Statement on 02 April 2007) and further in view of USP 5,651,574 to Tanikawa (herein referred "Tanikawa").

5. Regarding claim 1, the reference Masaaki discloses an automated pipette where a sample is drawn into the tip of a pipette (trapping mechanism) and delivering the sample into prescribed position into a well that is part of an array of wells (base). The sample is delivered from a piston that is connected to the tip of the pipette (see abstract). Masaaki does not disclose a gripping mechanism for gripping the micro-object. Tanikawa discloses a micromanipulator with two fingers that be effectively applied to grasping minute objects with sizes on the order of several micrometers (see column 5, lines 5-9). It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the automated pipette and micromanipulator to trap and grasp a micro-sized object to extract minute objects from a sample.

6. Regarding claims 2, 5 and 8 the reference Masaaki discloses the claimed invention except the grasping means. The Masaaki reference discloses the nozzle section is able to be moved to a different position in the well (lifting means) in the well where the sample can be observed and displayed (see abstract). Tanikawa discloses the grasping means (see column 5, lines 5-9). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate a lifting

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means raising the sample of interest to separate the droplet from the trapping mechanism to be gripped by the two-finger micromanipulator to grasp miniscule objects from the droplet.

7. Regarding claim 3, 6 and 9, the reference Masaaki discloses the claimed invention except for the grasping means. Tanikawa discloses the grasping means (see column 5, lines 5-9). The Masaaki reference discloses a well area that is used for dispensing the sample onto an area of the base where the micro-object can be observed and displayed (see abstract). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a means attached to the base where the obtained micro-object is able to be observed and displayed to physically see the object when grasping specific things from the micro-object.

8. Regarding claim 4, the reference Masaaki discloses the claimed invention except for the grasping mean. Tanikawa disclose the grasping means with a two-finger micromanipulator (see column 5, lines 5-9). Masaaki discloses a moving means where an XYZ robot is operated to shift the nozzle section of the pipette to a prescribed position (see abstract). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a moving means in the form of a robot to move the trapping means of the pipette to an exact precise location to limit human error while dispensing the micro-object or sample into a prescribed position.

9. Regarding claim 7, the reference Masaaki discloses the claimed invention except for the grasping mean. Tanikawa disclose the grasping means with a micromanipulator (see column 5, lines 5-9). Masaaki discloses a piston of a cylinder connected to the tip

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that is pushed, delivering and dispensing the sample from the tip (feed mechanism). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a feed mechanism for placing or delivering the droplet with the micro-objects to a predetermined location by a XYZ robot for analysis and obtaining the micro-object by the micromanipulator.

10. Regarding claims 10 and 11, the Masaaki reference discloses the claimed method except for gripping and separating the micro-object from the droplet. Masaaki discloses a sample that is drawn into a tip (trapping) that is delivered (placing droplet) from the tip by means of a piston of a cylinder connected to the tip placing the sample into a prescribed position in a well by means of a XYZ robot. The sample is placed in a well of a protein division vessel where it can be observed and displayed during trapping, gripping and separating. Tanikawa discloses a micromanipulator with fingers that are capable of grasping and gripping small minute object and capable of cutting, stretching or propelling as well as separating the micro-object from the trapped droplet (see column 5, lines 5-9). It would have been obvious to one having ordinary skill in the art at the time invention was made to combine the micromanipulator with gripping and grasping fingers with the automated pipetting system to obtain micro-objects on the size order of micrometers from droplets of an automated dispensing system to obtain precise locations of droplets and accurate separating techniques without the risk of human error and contamination.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine T. Mui whose telephone number is (571) 270-3243. The examiner can normally be reached on Monday-Friday 8-5; Alternate Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Griffin can be reached on (571) 272-1447. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CTM


WALTER D. GRIFFIN
SUPERVISORY PATENT EXAMINER